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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,595	10/03/2003	Brian W. Huber	DB000859-007	6161

7590 03/23/2006

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EXAMINER

HUR, JUNG H

ART UNIT	PAPER NUMBER
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2824

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/678,595

Applicant(s)

HUBER, BRIAN W.

Examiner

Jung (John) Hur

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/30/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Amendment***

1. Acknowledgment is made of applicant's Amendment, filed 30 December 2005. The changes and remarks disclosed therein have been considered.

No claims have been cancelled or added by Amendment. Therefore, claims 1-9 are pending in the application.

### ***Information Disclosure Statement***

2. Acknowledgment is made of applicant's Information Disclosure Statement (IDS) Form PTO-1449, filed 30 December 2005. The information disclosed therein has been considered.

### ***Specification***

3. The amendment filed 30 December 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Claims 1, 2 and 4-9, each recites a limitation "which is delayed by less than 180°".

Applicant states, in the middle of page 6, that "Support for that limitation can be found in paragraph 45 which states, with reference to Fig. 6, that 'all four transistors 106, 108, 110 and 112 may be on'. Clearly, that would not be possible if q and q' were 180° out of phase."

However, it is noted that, in the context of said paragraph, the phrase "may be on" appears to imply that all of said transistors may be enabled due to 116 and 114 being

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independently controlled (see Fig. 6). In addition, said paragraph, in the same sentence, also recites, as alternatives, that “transistors 106 and 110 may be on while transistors 108 and 112 may be off, and transistors 108 and 112 may be on while transistors 106 and 110 are off” (emphases added), which would be possible only if the term “on” or “off” is understood to mean that respective transistors are enabled or disabled, since the gates of 108 and 106 are commonly connected and the gates of 112 and 110 are commonly connected (see Fig. 6). Thus, said paragraph, considered as a whole in view of Fig. 6, does not imply that q or q' must be delayed by less than 180° from the other, nor that q and q' cannot be 180° out of phase.

Further, the signals q and ql of Fig. 6 are also shown in Fig. 2, in which they appear to be data signals from sense amplifiers 22 via a data path 24 in Fig. 1. Sense amplifiers commonly generate pairs of complementary data signals.

Applicant is required to cancel the new matter in the reply to this Office Action.

#### ***Claim Rejections - 35 USC § 112***

4. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Namely, said claims contain a limitation “which is delayed by less than 180°” which was not described in the specification in such a way as to reasonably convey to one skilled in the

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relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant states, in the middle of page 6, that "Support for that limitation can be found in paragraph 45 which states, with reference to Fig. 6, that 'all four transistors 106, 108, 110 and 112 may be on'. Clearly, that would not be possible if q and q' were 180° out of phase."

However, it is noted that, in the context of said paragraph, the phrase "may be on" appears to imply that all of said transistors may be enabled due to 116 and 114 being independently controlled (see Fig. 6). In addition, said paragraph, in the same sentence, also recites, as alternatives, that "transistors 106 and 110 may be on while transistors 108 and 112 may be off, and transistors 108 and 112 may be on while transistors 106 and 110 are off" (emphases added), which would be possible only if the term "on" or "off" is understood to mean that respective transistors are enabled or disabled, since the gates of 108 and 106 are commonly connected and the gates of 112 and 110 are commonly connected (see Fig. 6). Thus, said paragraph, considered as a whole in view of Fig. 6, does not imply that q or q' must be delayed by less than 180° from the other, nor that q and q' cannot be 180° out of phase.

Further, the signals q and ql of Fig. 6 are also shown in Fig. 2, in which they appear to be data signals from sense amplifiers 22 via a data path 24 in Fig. 1. Sense amplifiers commonly generate pairs of complementary data signals.

#### Allowable Subject Matter

5. Claims 1-9 ~~are allowable~~

would be allowable if rewritten to overcome the above-stated 35 USC 112 rejection.

The following is a statement of reasons for the indication of allowable subject matter:

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Regarding claims 1, 2 and 4-9, the prior arts of record do not disclose or suggest a pre-driver, a method, a portion of data path, a memory device or a computer system as in claim 1, 2, 4-8 or 9, and particularly, a second data path for carrying a delayed version of said signal which is delayed by less than 180°.

### *Response to Arguments*

6. Applicant's arguments with respect to claims 1, 2 and 4-9 have been considered but are moot in view of the new ground(s) of rejection, necessitated by the amendment. See rejections above.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lamphier et al. (U.S. Pat. No. 5,666,078); Vishwanthaiah et al. (U.S. Pat. No. 6,060,907); Yang et al. (U.S. Pat. No. 6,114,885)

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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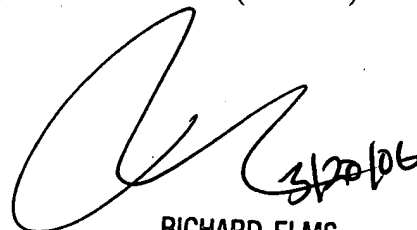
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung (John) Hur whose telephone number is (571) 272-1870. The examiner can normally be reached on M-F 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jhh



RICHARD ELMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

3/20/06